Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A device, comprising:

an interface member including a material of selectively variable density, wherein the material includes a first layer having a first density and a second layer having a second density;

a manipulandum movable in a degree of freedom, the manipulandum configured to penetrate the material;

a sensor configured to output a position signal based on the position of the manipulandum; and

an actuator configured to change the density of the material within at least a portion of the interface member in response to the position signal, the actuator configured to change the density of the second layer to be different from the density of the first layer as the manipulandum is moved between the first layer and the second layer, wherein the change in density ~~of the material~~ imparts a haptic effect to the manipulandum.

2. (Original) The device of claim 1, wherein the material includes a plurality of compressible beads.

3. (Original) The device of claim 1, wherein the material includes a plurality of polystyrene beads.

4. (Original) The device of claim 1, wherein the interface member includes a simulated bone structure.

5. (Currently Cancelled)

6. (Original) The device of claim 1, wherein the actuator is a clamp coupled to the interface member.

7. (Original) The device of claim 1, wherein the actuator is a vacuum coupled to the interface member.

8. (Original) The device of claim 1, the actuator being a first actuator, the device further comprising a plurality of actuators including the first actuator, each actuator from the plurality of actuators being an individually actuatable clamp.

9. (Currently Amended) A device, comprising:

a manipulandum movable in a degree of freedom;

a sensor configured to output a position signal based on a position of the manipulandum;

a retainer defining an interior in which a material is disposed, the material configured to receive an object moved by the manipulandum and having a selectively variable density, wherein the material includes a first layer having a first density and a second layer having a second density; and

an actuator coupled to the retainer, the actuator configured to change the density of the material within at least a portion of the interior of the retainer in response to the position signal, the actuator configured to change the density of the second layer to be different from the density of the first layer as the manipulandum is moved between the first layer and the second layer, wherein the change in density of the material imparts a haptic effect to the manipulandum.

10. (Original) The device of claim 9, wherein the manipulandum includes a first portion and a second portion, the second portion configured to be removably coupled to the object.

11. (Original) The device of claim 9, wherein the manipulandum is configured to move in a rotary degree of freedom about an axis, and move simultaneously along the axis.

12. (Original) The device of claim 9, wherein the interface member includes a simulated pedicle of a vertebrae.

13. (Previously Presented) The device of claim 9, wherein the interface member includes a simulated bone structure.

14. (Original) The device of claim 9, wherein the retainer is configured to compress the material in response to actuation of the actuator.

15. (Original) The device of claim 9, wherein the retainer is configured to modify a density of the material based on the position signal.

16. (Original) The device of claim 9, wherein the retainer is a clamp having an opening, the actuator including a motor configured to modify a size of the opening based on the position signal.

17. (Original) The device of claim 9, wherein the manipulandum is a screwdriver and the object is a screw.

18. (Original) The device of claim 9, further comprising:

a guide configured to receive at least a portion of the manipulandum, the guide being removably coupled adjacent to the retainer.

19. (Original) The device of claim 9, wherein the manipulandum is movable in two degrees of freedom.

20. (Original) The device of claim 9, wherein the manipulandum is movable in a rotary degree of freedom and a linear degree of freedom.

Claims 21-24. (Previously Cancelled)

25. (Previously Presented) The interface member of claim 33, further comprising a simulated bone structure.

26. (Previously Presented) The interface member of claim 33, wherein the material portion includes a plurality of compressible beads.

27. (Previously Presented) The interface member of claim 33, wherein the material portion includes a plurality of polystyrene beads.

28. (Currently Cancelled)

29. (Previously Cancelled)

30. (Currently Amended) A method, comprising:

receiving a position signal via a sensor, the position signal associated with a position of a manipulandum, at least a portion of the manipulandum penetrating a material within an interface member, the material having a selectively variable density wherein the material includes a first layer having a first density and a second layer having a second density; and

adjusting the density of the second layer of material to be different from the density of the first material within at least a portion of the interface member via an actuator coupled to the sensor, wherein the adjusting of the density imparts a haptic effect onto the manipulandum as the manipulandum is moved between the first layer and the second layer.

31. (Previously Presented) The method of claim 30, wherein the adjusting the density includes applying a compressive force to the interface material.

32. (Previously Presented) The method of claim 30, wherein the adjusting the density includes applying a vacuum to the interface material.

33. (Currently Amended) An interface member for use with a haptic feedback device including a manipulandum movable in a degree of freedom, the interface member configured to be penetrated by the manipulandum, the interface member comprising:

a material portion configured to be penetrated by at least a portion of a manipulandum, the material portion and having a selectively variable density, wherein the material includes a first layer having a first density and a second layer having a second density;

a sensor configured to measure a position of the manipulandum within the material portion and output a position signal associated with the measured position; and

an actuator coupled to the retainer, the actuator configured to change the density of the material portion in response to the position signal, the actuator configured to change the density of the second layer to be different from the density of the first layer as the manipulandum is moved between the first layer and the second layer, wherein the change in density of the material imparts a haptic effect onto the manipulandum.